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ABSTRACT

Instructions for completing a student research project are provided. The project consists of selecting an energy-related topic, preparing notecards (which contain important information, quotations, and bibliographic information obtained from libraries and other sources), preparing an outline, writing a report (a term paper), and constructing a poster or model to accompany the report. In addition, comments on time factors, organization of information, preparing a rough draft of the report, taking notes, and preparing bibliography cards and a bibliography are provided. A checklist for preparing a term paper is also included. Project objectives include: (1) learning which sources of energy have become the most important and how they are used; (2) learning about the nature, potential, and development of alternative energy sources; (3) understanding why many energy sources are being depleted; (4) locating energy information in books, encyclopedias, audio-visual media, magazines, and periodicals; (5) reading and thinking critically in judging the usefulness of such information; (6) organizing information gathered from a variety of sources; and (7) accompanying the written report with a poster, model, experiment, or audio-visual aid that relates to the topic of the report. (JN)

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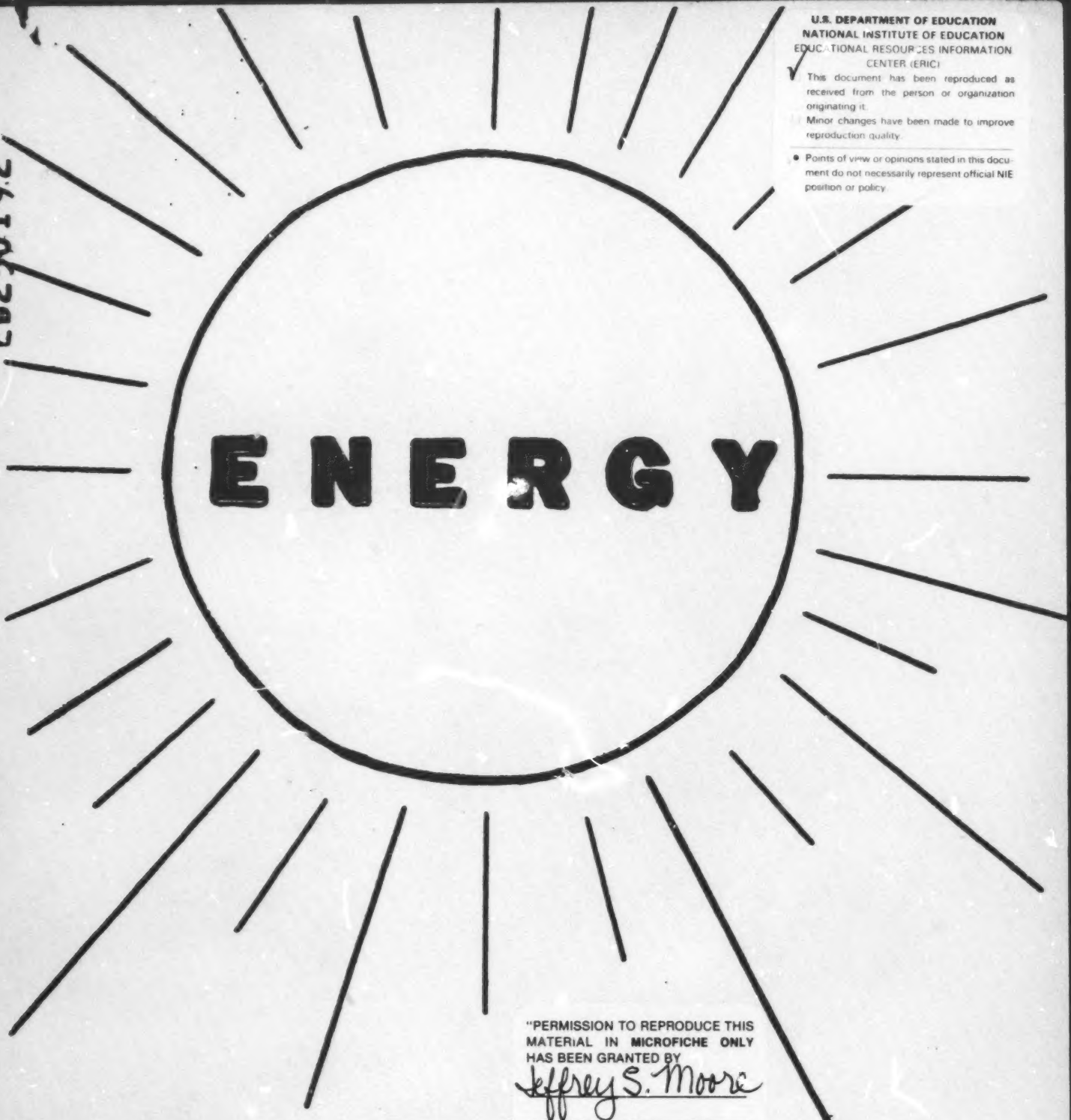

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A National Need, A National Challenge

----- A research project for Mr. Moore's Science class and Mrs. Zanetti's Language Arts class, January through February, 1984.

NAME _____

SE045171

NATIONAL ENERGY PLAN

Enacted into law in 1978, the National Energy Plan rests on these principles: (1) Conservation and efficient use of fuel, (2) Realistic prices to fuel producers and realistic charges to users, (3) A continuing government policy that everyone can rely on, (4) Increased use of coal and uranium instead of the oil and natural gas that are in short supply, (5) Development of new and little used technologies for the future. This includes solar power, geothermal energy, fusion, cogeneration of electricity and steam heat, solid wastes, ocean energy, and smaller hydroelectric sites, (6) Protection of the environment, and (7) Care that the burden of conservation and higher prices will be shared equally by all parts of the country and all economic groups.

The plan includes seven specific goals to be reached by 1985:

1. Reduce the energy consumption growth rate to below 2% per year.
2. Reduce gasoline consumption by 10% below the 1976 level.
3. Reduce oil imports to less than 6 million barrels per day.
4. Establish a Strategic Petroleum Reserve - an oil storehouse - of 1 billion barrels.
5. Increase production of our most abundant fuel - coal - by two-thirds, to more than 1 billion tons per year.
6. Insulate 90% of American homes and all new buildings.
7. Use solar energy in 2.5 million homes.

Objectives

1. To understand how energy use affects us, our family, our community, our nation, and the world.

2. To learn which sources of energy have become most important to us and how we use these energy sources.

3. To understand why, because of the growth of the world's population and our increasing dependence on the products of technology, many of our sources of energy are being depleted.

4. To learn about "alternate" energy sources, their potential, and how they are being developed.

5. To locate information on energy in books, encyclopedias, audio-visual media, magazines, and other periodicals.

6. To read and think critically in judging the usefulness of such information.

7. To organize the information gathered from the sources consulted.

8. To use spelling and writing skills to write a term paper on energy.

9. To accompany the term paper with a poster, model, experiment, or audio-visual aid that relates to the topic of the term paper.

Topics

Your topic may be chosen from any of these general areas:

I. Renewable sources of energy
   - A. Solar energy
   - B. Wind energy
   - C. Water energy (produced from waves, tides, and ocean currents)
   - D. Biomass energy (produced from organic wastes and garbage)
   - E. Gasohol

II. Non-renewable energy sources
   - A. Fossil fuels
     1. Crude oil
     2. Natural gas
     3. Coal
     4. Oil shale
     5. Tar sands
   - B. Hydroelectricity

III. Other energy sources
   - A. Nuclear energy
   - B. Geothermal energy
   - C. Synthetic fuels ("Synfuels")

IV. Energy conservation

V. The national energy policy

VI. Any approved topic not mentioned above

How the project will be graded

The grade you earn on this project will be based on the following considerations:

1. Are the objectives of the project met?
2. Is your topic throughly researched?
   a. Have you consulted a sufficient number of sources?
   b. Are many of the "Setting Your Purpose for Writing" questions answered?
   c. Does your project seem to raise more questions than it answers?
   d. Does your paper seem long enough?
3. Is the paper neat and legible?
4. Is the paper well-organized, logical and understandable?
5. Are your thoughts well-expressed?
6. Are the rules of capitalization, punctuation, grammar, and spelling obeyed?
7. Is the accompanying poster or model well-designed, neat, attractive, and related to the research topic?

The Research

You will be required to conduct research on a topic chosen by you relating to energy. The research will be conducted in Science class, Language Arts class, in large groups at the Brady Middle School Media Center, at the Orange Community Library, and on your own. Several times have been scheduled at our Media Center and at the Community Library for you to do this research. (See schedule below.)

B.M.S. Media Center		Orange Community Library	
Feb. 3	Section 7-4 11:20 to 12:15		
Feb. 6	Section 7-3 11:20 to 12:15	Feb. 2	Sections 7-3 and 7-4 10:40 to 12:15
Feb. 7	Section 7-4 11:20 to 12:15	Feb. 9	Sections 7-3 and 7-4 10:40 to 12:15
Feb. 10	Section 7-3 11:20 to 12:15		

The Assignment

A. Notecards Notecards on which important information, quotations, and bibliographical information will be written are required.

B. Outline An outline of your term paper, which will aid you in the preparation of your final draft, is required.

C. Written report A written report (term paper) of between 1800 and 2800 words is required. It may be written in ink (in cursive) or typed. If written, it will be done on one side of wide-lined (not college-ruled) notebook paper, and double-spaced. (That is, you must skip lines.) It will be between 14 and 24 pages in length.

If you choose to type your paper, use only one side of the paper, double-spaced. (If someone types the paper for you, you must give credit to that helpful individual on the title page of your report!) It will be between 7 and 12 pages in length.

THE WRITTEN REPORT WILL ACCOUNT FOR 2/3 OF YOUR PROJECT GRADE!

D. Poster or model Accompanying your report will be a poster between 18" X 24" and 24" X 48" or a craft or model relating to your research topic.

THE POSTER OR MODEL WILL ACCOUNT FOR 1/3 OF YOUR PROJECT GRADE!

E. OPTIONAL: You may wish to make a working model or perform an experiment that relates to your topic. (Examples: Model home showing insulation or solar or gas energy use, models of gas or oil wells, solar cells powering a small motor.)

See Mr. Moore for further details or suggestions.

E. (Continued) A "store-bought" model or kit relating to your topic is not in and of itself sufficient to satisfy the POSTER/MODEL requirement of your Energy Project. A poster and written description of the model or kit (written by <u>you</u>!) must accompany it.

If you must use "store-bought" materials, it would be much more appropriate to apply them in a creative way to an original model of your own design.

F. <u>OPTIONAL</u>: You may wish to create your own audio-visual presentation to accompany your written report. Examples of this would include a sound-filmstrip, a videotape, a sound-slide presentation, or a film.

G. <u>OPTIONAL</u>: You may wish to design your own computer program that relates to your topic. (See Mr. Moore for further details or suggestions.)

******<u>NOTE</u>: POSTERS, MODELS, EXPERIMENTS, AND AUDIO-VISUAL ACCOMPANIMENTS TO TERM PAPERS ARE TO BE STUDENT-MADE! (Parents, please resist the temptation to help your child <u>too</u> much!)

BRING ON THE WORK...

...BECAUSE I'VE GOT THE ENERGY!

Important dates

Consult the calendar attached to this assignment and carefully note dates we will be visiting the Media Center and the Community Library and the due dates for the outline and notecards and the final draft of the paper. The calendar is placed there so you may pace your work. Use your time wisely the next few weeks. Don't procrastinate! You will be given time to conduct research and work on your paper during school, but you will have to work on it on your own as well!

Appendices

Refer to the attached pages and ones given to you in class that will help you conduct your research, organize your information, and write your outline and final draft. You will be responsible for keeping them. No replacements will be provided!

Energy Fair

You will be given an opportunity to display your work at our 7th grade Energy Fair to be held in our Student Living Room. Those that are judged to be of superior quality by the 7th grade Science staff will be entered into the East Ohio Gas Company's Energy Contest.

A Final Word

For many of you, this assignment may be the first term paper you have ever done. It may be the biggest assignment ever given you. It may even look impossible! Take heart. It is not! Mr. Moore and Mrs. Zanetti will work closely with you every step of the way. We will show you how to research, take notes, outline, organize your information, and write your final draft. We will not, however, do the work for you! Together, we will work to make this a successful and enjoyable project! GOOD LUCK!!!

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GETTING IT TOGETHER

A term paper is probably the longest, most complicated assignment you can be given. It may seem overwhelming at first, but you will be able to handle it if you are able to organize your time, your thoughts, and your materials. A term paper can be seen as a series of small tasks that, when done thoroughly and in the right order, will make the final product, the paper itself, much easier to complete. The following is a plan by which you can do this so the assignment can become more manageable.

Organize Your Time

1) Obtain a calendar (or photocopy calendar pages) and note the days on which you should have completed certain tasks, such as your research, your outline, your rough draft, and final draft. (See example below.)

FEBRUARY						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 TERM PAPER ASSIGNED TODAY	2
3	4	5 TOPIC CHOSEN BY TODAY!	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22 RESEARCH COMPLETED BY TODAY!	23
24	25	26	27	28		

MARCH						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7 OUTLINE DUE TODAY!	8	9
10	11	12	13	14	15 ROUGH DRAFT DUE TODAY!	16
17	18(SPRING BREAK THRU 3/22)	19	20	21	22	23
24	25	26 FINAL DRAFT DUE TODAY!	27	28	29	30
31						

2) Set aside a portion of <u>each day</u> to work on your term paper. Don't put off work on your paper because it can catch up to you before you know it! PROCRASTINATION IS DEADLY!

<u>Your Research</u>

1) Pick a topic for which you can find enough information to write a good term paper. Make sure you don't make your topic too general or too narrow. Your teacher can help you do this.

2) Once you have chosen your topic, write a good topic sentence. A topic sentence states "in a nutshell" what you would like someone who reads your paper to learn about the subject you have chosen for your research. Your topic sentence will be the foundation on which your term paper is based. Your teacher can help you with your topic sentence. (Note: Some teachers prefer a <u>thesis statement</u> to a topic sentence.)

3) Before you begin your research, write down as many questions as you can for which you would like to find answers on the topic you have chosen. These questions will be very helpful in guiding your research. (See "Setting Your Purpose for Writing.")

3) Visit your school library/media center and public library often. Ask the librarians for suggestions that will help you find materials. You may wish to make a list of all available sources before you actually begin taking notes.

4) Use the tables of contents and indexes of your sources to guide you to the information that is most useful to you. Look for main ideas and details that are most closely related to your topic. Do not spend too much time with information you cannot use in your paper. Keep referring to the "Setting Your Purpose for Writing" questions (or the questions that you thought of yourself) to help you decide which information is valuable and which is not.

5) Take notes on notecards. Follow the notecard format suggested by your teacher and write your notes neatly and legibly. Notes can be quotes from experts, information from your sources that you have put into your own words, facts, opinions, statistics, and examples.

6) Make sure you've carefully recorded complete bibliographical information of each source you consult on bibliography cards.

Organizing Your Information

1) Decide which information from your research you will include in your paper and which you will leave out. (Don't feel that you must work into your paper the information on every notecard you took!)

2) Arrange your notecards in a logical order. When doing so, keep in mind that a good paper has an introduction, a body, and a conclusion. Try to decide which of the notes you took are best suited to one of those three parts of your paper.

3) Write a topic outline based upon your organized notecards.

Your Rough Draft

1) Begin your rough draft with a good introduction that clearly states the main idea of your paper. Work into your introduction your topic sentence (or thesis statement).

2) The body of your paper should develop the main idea of your paper as stated in your introduction. Be sure that you support all opinions (yours or someone else's) with facts, examples, or quotations taken from the sources you have consulted.

3) The conclusion of your paper should tie together the points you have made in the body and should include a restatement of your paper's main idea.

4) Make sure you proofread your rough draft and check for errors in spelling, capitalization, punctuation, and grammar.

5) Make sure all of your ideas relate to one another and to the topic of your paper. Have you made smooth transitions between your ideas, sentences, and paragraphs? Do your sentences read clearly or are they awkwardly expressed? (Have a friend or relative read your rough draft to check for errors and unclear or poorly expressed thoughts.)

Your Final Draft

1) Make sure your final draft, whether it is typed or handwritten, is neat and legible. Erasures should be invisible. Cross-outs, smudges, and mistakes that are written over without erasure are not appropriate in a term paper!

2) Write or type your bibliography page according to the format suggested by your teacher. Each bibliography entry should be complete.

3) Proofread your final draft one last time before handing it in.

Setting Your Purpose for Writing

Before you begin your research, it is a good idea to have in mind what you are looking for. You may find quite a bit of information as you read your books, magazines, and encyclopedias, but you probably will not use anywhere near all of it! How do you decide which information to use and which not to use?

If you approach your research armed with some general questions, you may be better able to determine how helpful some resources may be. The following is a list of such questions. It is not necessary that your research lead you to answers for all of them, nor is this necessarily a complete list.

The order in which these questions come by no means implies how important the questions may be. Moreover, don't feel that a question-and-answer (Q & A) format for your term paper is being suggested by this list. IT IS NOT! How you are to organize your paper will be discussed at a later date.

- - - - - - - -

What is the history of the development and use of this energy source?

How does this energy source work?

Is this energy source renewable? If not, why not?

If this energy source is not renewable, how long will it be before it is depleted?

Is this energy source better suited to particular areas of the country (or the world)? If so, why?

What fraction of our energy needs is met, or is expected to be met, by this energy source?

Is this energy source controversial? If so, why?

What problems surround the development and use of this energy source?

How expensive is this energy source to develop and use?

How efficient is this source of energy?

How can this source of energy be made more efficient?

What sort of waste or pollution can be expected from this energy source?

Other than pollution, how does the development and use of this energy source affect the environment?

If this is an "alternate" energy source, how long will it be before it can be expected to meet a significant fraction of our energy needs?

What fraction of the work force (or number of workers) is involved in the production of energy from this source?

Does it cost more to produce energy from this energy source than it profits us to use it? That is, how expensive is it to develop and use this energy source?

How is the energy from this source used? Food production? Generation of electricity? Transportation? Chemical by-products?

What is O.P.E.C. and why is it important?

What is the P.U.C.O. and why is it important to energy use in Ohio?

What steps are being taken to conserve energy and use it more wisely?

BRADY MIDDLE SCHOOL MEDIA CTR.

ENERGY PROJECT

RESEARCH SUGGESTIONS

If you are doing a thorough job of researching a subject you will check all of the sources listed below:

_____ REFERENCE SOURCES - Primary and Secondary

_____ General Reference Sources - Encyclopedias etc.

_____ Specific Reference Sources - Science Dictionaries Energy Atlas - THE NEW BOOK OF POPULAR SCIENCE - etc.

_____ Card Catalog: Possible subject headings could be; ENERGY, POWER RESOURCES, NUCLEAR POWER, SOLAR ENERGY, FORCE AND ENERGY, FOSSIL FUELS etc.....
Check all possible subject headings and when you find the book you want, be sure to use the index.

_____ READERS GUIDE TO PERIODICAL LITERATURE:
Look up your subject in the magazine index. List all articles that are given. If Brady does not subscribe to the magazine, maybe the public library does.

_____ NEWSPAPERS: Good source for current information.

_____ PAMPHLET FILE: This is one of the best places to locate current information about energy. Be sure to check the SOCIAL ISSUES RESOURCES SERIES of pamphlets. Look under the subject in the index or in the pamphlet file.

_____ AUDIO - VISUAL INFORMATION: Orange banded cards in the card catalog.

_____ FILMSTRIPS

_____ TAPES OR VIDEO TAPES

_____ SLIDES (consider making your own)

_____ TRANSPARENCIES

_____ OTHER SOURCES:

_____ Interview with experts in the field.

_____ Watch for TV Specials or programs which might relate to your subject.

_____ YOUR OWN IDEAS:

_____

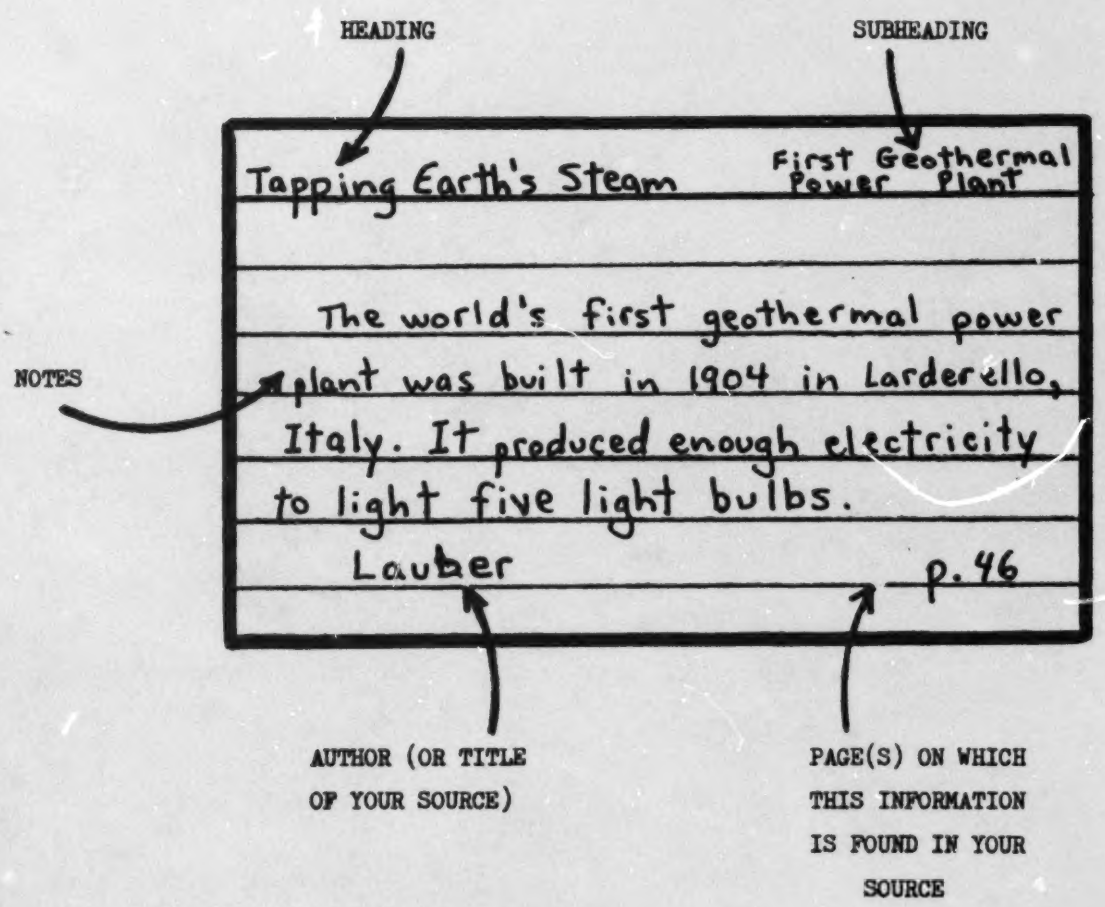
_____

TAKING NOTES

The backbone of your term paper is the information you write on your note cards. Below is an example of such a note card. Follow this suggested format.

This is an example of a 3" x 5" note card. Your teacher may suggest that you use 4" x 6" or 6" x 8" note cards. (Don't mix note card sizes, however.)

Limit yourself to <u>one idea per note card</u>. While this may seem like a terrible waste of note card space, it will greatly help you when you decide to eliminate some note cards and when you put the rest into the sequence that you want before you begin writing your outline.


HEADING
SUBHEADING
Tapping Earth's Steam
First Geothermal Power Plant
NOTES
The world's first geothermal power plant was built in 1904 in Larderello, Italy. It produced enough electricity to light five light bulbs.
Lauber
p. 46
AUTHOR (OR TITLE OF YOUR SOURCE)
PAGE(S) ON WHICH THIS INFORMATION IS FOUND IN YOUR SOURCE

OUTLINE

Now that you have collected the information, and organized your notes, you are ready to do an outline. If you do your outline thoughtfully and carefully you will have an easier time writing your paoer. By stating your purpose for writing you will be able to stick to the subject. Remember, this is a topic outline. Do not use complete sentences except for the topic sentence.

Topic:

Title:

Topic sentence: (In this paper I hope to show .....)

I.
- A.
  - 1.
  - 2.
- B.
  - 1.
  - 2.

II.
- A.
  - 1.
  - 2.
- B.
  - 1.
  - 2.

III.
- A.
  - 1.
  - 2.
- B.
  - 1.
  - 2.

REMINDER

If you have an "A", you must have a "B".
If you have a "1", you must have a "2", etc.

PREPARING BIBLIOGRAPHY CARDS AND A BIBLIOGRAPHY

The bibliography is an important part of a research paper. To give the reader complete information as to the sources used in writing a paper, a bibliography (list of sources used) must be attached.

A working bibliography using cards should be prepared during your research. Pictured below are examples of bibliography (source) cards.

Book:

Smith, Robert F., Sun Power, New York: Harper, 1976.

Magazine:

Nader, Ralph, "Solar Solution," Redbook, 95:98. November 1978.

Book with more than one author:

Corwin, W.G., and Koenig, A.C. The Solar Age Resource Book, New York: Harper and Row, 1981.

Example of pamphlet:

Department of Energy, Solar Heating Washington: U.S. Government Printing Office, 1980.

Encyclopedia article with an author:

Duffie, John A., "Solar Energy for Tomorrow", Encyclopedia Americana, Connecticut: Americana Corporation, 1980.

Example of Audio Visual Material:

National Geographic Society, Harnessing the Sun, Filmstrip, Washington: National Geographic, 1968.

Encyclopedia article without author:

"Solar Energy in the Future," World Book Encyclopedia, Chicago: World Book Childcraft International, Inc., 1981.

Example of an interview source:

East Ohio Gas Company, Personal interview with Mr. Smith in the Department of Energy Conservation, October 26, 1982.

The bibliography is a list of all research sources used to prepare your paper.

1. This is attached at the end of the final draft.
2. Information for the bibliography comes from the bibliography cards which have been prepared.
3. A bibliography is in alphabetical order according to the last name of the author or if the item is unauthored, alphabetically by the first word of the title. If the first word is the, an, or a, the second word determines the alphabetical position.
4. Alphabetizing can be done easily by arranging the working bibliography cards in alphabetical order.
5. When the item occupies more than one line, the second line should be indented so that the names of authors will stand out on the page.
6. Entries are not numbered.
7. Below is the correct format for a typical bibliography page listing sources such as books, encyclopedias, magazines, pamphlets, interviews, and Audio-Visual materials.

BIBLIOGRAPHY

Corwin, W.G., and Koenig, A.C., The Solar Age Resource Book, New York: Harper and Row, 1981.

Department of Energy. Solar Heating, Washington: U.S. Government Printing office, 1980.

Duffie, John A., "Solar Energy for Tomorrow," Encyclopedia Americana, Connecticut: Americana Corporation, 1980.

East Ohio Gas Company, Personal Interview with Mr. Smith in the Department of Energy Conservation, October 26, 1982.

National Geographic Society, Harnessing the Sun, Filmstrip, Washington: National Geographic, 1968.

Nader, Ralph, "Solar Solution," Redbook, 95:98, November 1978.

Smith, Robert F., Sun Power, New York: Harper, 1976.

"Solar Energy in the Future," World Book Encyclopedia, Chicago: World Book Childcraft International, Inc., 1981.

YOUR TERM PAPER CHECKLIST

In preparation for handing in the most accurate, effectively written paper possible, check your paper against each of the items listed below. When you have carefully checked each and you have found them to be perfect, place a check in the COMPLETED column. If you have found an item to be imperfect, place a check in the REVISE column. Continue to work on your report until all of the blanks in the COMPLETED column are filled. Settle for nothing but the best from yourself!

ITEM	COMPLETED	REVISE
Organization:		
1. There is a logical beginning, middle and end to my paper.	_____	_____
2. The main point of my paper is clearly stated in the introduction and summed up in the conclusion.	_____	_____
3. Each paragraph develops an idea related to my topic.	_____	_____
4. I have made smooth transitions between my ideas.	_____	_____
5. All opinions expressed in my paper, either mine or someone else's, is supported by facts or examples.	_____	_____
6. Everything is clearly explained. I have told "why" and "how" throughout.	_____	_____
Grammar:		
1. All paragraphs are properly indented.	_____	_____
2. I have used capital letters everywhere they are necessary.	_____	_____
3. I have correctly punctuated all sentences.	_____	_____
4. All spelling is correct.	_____	_____
5. I have used complete sentences. There are no sentence fragments or run-on sentences in my paper.	_____	_____
6. All verbs agree with the subjects in all sentences.	_____	_____
7. I have kept verb tense consistent throughout.	_____	_____
Mechanics:		
1. The cover page of my paper (if required) is correct.	_____	_____
2. My margins are correctly spaced.	_____	_____
3. My pages are properly numbered and in the right order.	_____	_____
4. My bibliography follows proper form.	_____	_____
5. My writing (or typing) is as clear and as neat as possible.	_____	_____
6. This is my best work. I am proud to put my name on it!	_____	_____

JANUARY 1984

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 New Year's Day Open Swim & Gym 2-4pm	2 WINTER RECESS Schools Closed	3 Schools Open HS Varsity & JV Boys Basketball Wickliffe (A) 6:30pm O. Patronares Mtg. MS 8pm Open Swim 7-9pm	4 HS Varsity & JV Girls Basketball West G. (H) 6:30pm HS Gymnastics West G. (A) 6:30pm MS Gymnastics Kenston (H) 4:30pm Booster Mtg. MS 7:30pm	5 HS Freshman Basketball Wickliffe (A) 4:30pm MS 8th Gr. Basketball & Wrestling Kenston (A) 4:30pm MS 7th Gr. Basketball Kenston (H) 4:30pm Adult Only Swim 7-9pm	6 HS Varsity & JV Boys Basketball Chagrin Falls (A) 6:30pm HS Varsity & JV Wrestling Chagrin Falls (H) 6pm HS Varsity Boys & Girls Swim Mayfield (H) 7pm	7 HS Freshman Basketball Chagrin Falls (A) 10am HS Varsity & JV Wrestling Shaker Hts. (H) 7:30pm Winter Community Ed./Rec. Registration Begins 10am-1pm Rec. Office Open Swim & Gym 2-4pm
8 Open Swim & Gym 2-4pm	9 HS Varsity & JV Girls Basketball Bedford (A) 6:30pm AFS Mtg. O. Lib. 7pm CODE Concerned Persons Mtg. MS 7:30pm School Bd. Mtg. HS 8pm	10 HS PTA Mtg. 9:15am MS 8th Gr. Basketball West G. (H) 4:30pm MS 7th Gr. Basketball West G. (A) 4:30pm Orange Jubilee Organizational Mtg. Rec. Office 7:30pm Open Swim 7-9pm	11 HS Varsity & JV Girls Basketball Chardon (A) 6:30pm HS Gymnastics Chardon (H) 6:30pm MS Gymnastics West G. (A) 4:30pm	12 HS Varsity Boys & Girls Swim Midpark-Shaker Hts. (H) 4:30pm MS 8th Gr. Basketball & Wrestling Dodge (H) 4:30pm OCAA Bd. Mtg. HS 8pm	13 HS Varsity & JV Boys Basketball West G. (H) 6:30pm HS Varsity & JV Wrestling West G. (A) 6pm HS Varsity Boys & Girls Swim Worthington (A) 7pm	14 HS Varsity & JV Boys Basketball Gilmour (H) 6:30pm HS Freshman Basketball West G. (H) 10am Open Swim & Gym 2-4pm
15 Open Swim & Gym 2-4pm	16 MARTIN LUTHER KING DAY Schools Closed Community Ed. & Rec. Youth Ski Trip to N.Y. Open Swim & Gym 2-4pm	17 HS Varsity Boys & Girls Swim Westlake (H) 4:30pm MS 8th Gr. Basketball Chardon (A) 4:30pm MS 7th Gr. Basketball Chardon (H) 4:30pm Community Ed. & Rec. Commission Mtg. Rec. Office 8pm Elem. PTA Open Mtg. "Nutrition." Recipe Exchange MS 9:15 am	18 HS Varsity & JV Girls Basketball Solon (H) 6:30pm HS Gymnastics Solon (A) 6:30pm MS Gymnastics Chardon (H) 4:30pm	19 MS 8th Gr. Basketball & Wrestling Wickliffe (A) 4:30pm MS 7th Gr. Basketball Wickliffe (H) 4:30pm Adult Only Swim 7-9pm	20 HS Varsity & JV Boys Basketball Chardon (A) 6:30pm HS Varsity & JV Wrestling Chardon (H) 6pm HS Varsity Boys Swim Hawken (A) 4:30pm	21 HS Freshman Basketball Chardon (A) 10am HS Varsity & JV Wrestling Amherst (H) 7:30pm HS Varsity Girls Swim Orange Relays (H) 10am No Swim or Gym
22 Open Swim & Gym 2-4pm	23 School Bd. Mtg. HS 8pm	24 HS Gymnastics Solon (A) 4:30pm Open Swim 7-9pm	25 HS Semester Exams through 1/27 HS Varsity & JV Girls Basketball Kenston (H) 6:30pm HS Gymnastics Kenston (A) 6:30pm	26 OCAA Bd. Mtg. [illegible] Adult Only Swim 7-9pm	27 NOTE! End of 1st Semester HS Varsity & JV Boys Basketball Solon (H) 6:30 pm HS Varsity & JV Wrestling Solon (A) 6pm HS Varsity Girls Swim Hawken (H) 7pm	28 SAT/ACH (H) HS Varsity & JV Boys Basketball Brush (H) 6:30pm HS Freshman Basketball Solon (H) 10am HS Varsity Boys Swim Toledo St. Francis (A) 7pm Winter Recreation Swim Lessons Begin Open Swim & Gym 2-4pm
29 20 Open Swim & Gym 2-4pm	30 Second Semester Begins HS Varsity & JV Girls Basketball Brush (A) 4pm PP Intramurals Begin for Second Semester through 4/26	31 TRIP TO N.A.S.A. HS Senior Parents' Coffee Hoods Center 7:30pm MS Gymnastics Solon (H) 4:30pm Open Swim 7-9pm	DAYTIME SCHOOL PHONE NUMBER 831-8600 AFTER SCHOOL PHONE NUMBERS HS Maintenance Office 831-3037 Pepper Mill Office 8601 Personnel Office 8610 Business Office 8611 High School Pool 8603 Middle School Office 8604 Moreland Hills Day Care 8605 High School Gym 8606 Maintenance Office 8608 Community Ed. Rec. Office 1605 Orange Community Ed. Rec. Program 8668 High School Attendance 7373 ■ Blackened date indicates schools closed			21

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FEBRUARY 1984

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 8th Gr. Parent Orientation Night HS 7:45pm HS Varsity & JV Girls Basketball Twinsburg (A) 6:30pm HS Gymnastics Twinsburg (H) 6:30pm PP, MH Parent-Teacher Conferences through 2/29 Booster Mtg. MS 7:30pm	2 7-3/7-4 VISIT ORANGE COMMUNITY LIBRARY 8th Gr. Parent Orientation Night HS 7:45pm Adult Only Swim 7-9pm	3 7-4 VISITS MEDIA CTR. HS Varsity & JV Boys Basketball Kenston (H) 6:30pm HS Varsity & JV Wrestling Kenston (A) 5pm HS Grade Cards Sent Home Information Deadline for Spring-Summer Brochure	4 HS Varsity & JV Girls Basketball Roehm (A) 6:30pm HS Freshman Basketball Kenston (H) 10am HS Varsity Boys & Girls Swim Kent 7pm HS Varsity & JV Girls Basketball Newbury (A) 6pm HS Gymnastics CVC Meet (A) 4pm Open Swim & Gym 2-4pm
5 Open Swim & Gym 2-4pm	6 7-3 VISITS MEDIA CTR. HS Gymnastics Richmond Hts (A) 6:30pm	7 7-4 VISITS MEDIA CTR. HS PTA Mtg. 9:15am HS Junior Parents' Coffee Media Center 7:30pm HS Varsity Boys & Girls Swim Lakewood (H) 4:30pm MS Gymnastics Chagrin Falls (A) 4:30pm D Patronatos Mtg. MS 8pm	8 K-7 - EARLY DISMISSAL - Parent Conferences HOW ABOUT A VISIT TO THE COMMUNITY LIBRARY THIS AFTERNOON? HS Varsity & JV Girls Basketball Wickliffe (H) 6:30pm HS Gymnastics Aurora (Opt.) (H) 30pm PP PTA Program PP 7:30pm	9 7-3/7-4 VISIT ORANGE COMMUNITY LIBRARY HS Winter Instrumental Music Concert Aud. 8pm HS Girls Basketball Chardon (A) 4:30pm Adult Only Swim 7-9pm	10 7-3 VISITS MEDIA CTR. HS Varsity & JV Boys Basketball Twinsburg (A) 6:30pm HS Varsity & JV Wrestling Twinsburg (H) 6pm HS Varsity Boys & Girls Swim Bedford Tokays (A) 6:45pm	11 ACT (A) HS Winter Formal-Commons 9pm HS Freshman Basketball Twinsburg (A) 10am HS Varsity Boys & Girls Swim Kent Canton McKinley (A) 7pm Open Swim & Gym 2-4pm
12 Open Swim & Gym 2-4pm	13 CODE Concerned Persons Mtg. MS 7:30pm School Bd. Mtg. HS 8pm	14 MS Gymnastics Dodge (A) 4:30pm PP Valentine Day Class Parties-Gr. 3-4 2:15pm, Gr. 5 2pm MH Valentine Day Parties Open Swim 7-9pm	15 MS 8th Gr. Career Day Program MS Winter Sports Pot Luck Dinner PP, MH PTA Used Book Sale Collection through 2/17 Young'ns University Closed for Conferences	16 MS Girls Basketball Dodge (H) 4:30pm Young'ns University Closed for Conferences Adult Only Swim 7-9pm	17 HS Varsity & JV Boys Basketball Wickliffe (H) 6:30pm HS Varsity & JV Wrestling Wickliffe (A) 6pm	18 HS Freshman Basketball Wickliffe (H) 10am Open Swim & Gym 2-4pm
19 Open Swim & Gym 2-4pm	20 PRESIDENTS DAY - Schools Closed Voc. Swim & Gym 2-4pm	21 MS Girls Basketball West G. (H) 4:30pm Elem. PTA Open Mtg. "Peer Pressure" MS 7:30pm Community Ed. & Rec. Commission Mtg. Rec. Office 8pm Open Swim & Gym 7-9pm	22 OUTLINE AND NOTE CARDS DUE TODAY! PP, MH PTA Used Book Sale through 2/23	23 MS Girls Basketball Kenston (A) 4:30pm OCAA Bd. Mtg. HS 8pm Adult Only Swim & Gym 7-9pm	24 HS Varsity Boys & Girls Swim District (A) through 2/25	25 Open Swim & Gym 2-4pm
26 22 Open Swim & Gym 2-4pm AFS Banquet HS Commons 6pm	27 School Bd. Mtg. HS 8pm	28 MS Girls Basketball Chagrin Falls (A) 4:30pm Open Swim & Gym 7-9pm	29 LEAP YEAR DAY			23

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MARCH 1984

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
[illegible]				1 HS Girls Basketball Solon (A) 4:30pm MS 8th Gr. Parent Coffee-Information Unit 7:45pm Adult Only Swim & Gym 7-9pm O. Fed. Mtg. O. Lib. 8:30pm	2 HS Varsity Boys & Girls Swim State (A) through 3/3	3 HS Pride Tide Basketball Commons 6pm Open Swim & Gym 2-4pm
4 Open Swim & Gym 2-4pm	5 ROUGH DRAFT OF PAPER DUE TODAY!	6 PTA Combined HS & Elem. Luncheon 11:30am MS Girls Basketball Wickliffe (H) 4:30pm O. Patronettes Mtg. MS 8pm Open Swim & Gym 7-9pm Orange Jubilee Organizational Mtg. Rec. Office 7:30pm	7 Booster Mtg. MS 7:30pm	8 HS Gymnastics Show 7:30pm MS Girls Basketball Chardon (H) 4:30pm Adult Only Swim 7-9pm (No Gym)	9 HS End of 4th Grading Period HS Spring Musical Aud. 8pm	10 HS Spring Musical Aud. 8pm Open Swim & Gym 2-4pm
11 Open Swim & Gym 2-4pm	12 FINAL COPY OF TERM PAPER DUE TODAY! AFS Mtg. O. Lib. 7pm CODE Concerned Persons Mtg. MS 7:30pm School Bd. Mtg. HS 8pm	13 HS "Jump-For-Your-Heart" MS Girls Basketball Dodge (A) 4:30pm Open Swim & Gym 7-9pm	14	15 PROJECT OR MODEL DUE TODAY! MS Girls Basketball West G. (A) 4:30pm MH 1st Gr. Spring Arts Festival 7:30pm Adult Only Swim & Gym 7-9pm	16 PROFESSIONAL IN-SERVICE DAY - No School for Students Open Swim & Gym 2-4pm	17 Open Swim & Gym 2-4pm
18 Open Swim & Gym 2-4pm	19	20 Community Ed. & Rec. Commission Mtg. Rec. Office 8pm Elem. PTA Open Mtg "Lillian Schlacter" MS 9:15am Open Swim & Gym 7-9pm	21 HS Post HS Opportunity Night Kenston (A) 7pm	22 OCAA Bd. Mtg. HS 8pm Adult Only Swim & Gym 7-9pm	23	24 Spring Community Ed. & Rec. Registration Begins 10am-1pm Elem. PTA Family Night "Browns vs Faculty" HS 7:30pm Open Swim & Gym 2-4pm
25 24 HS PTA Pancake Breakfast Open Swim & Gym 2-4pm	26 School Bd. Mtg. HS 8pm	27 Open Swim & Gym 7-9pm	28	29 Adult Only Swim & Gym 7-9pm	30 BEST COPY AVAILABLE	31 25 ACT (A) OCAA Spring Hardball & Softball Sign-Up HS 10am-12noon Open Swim & Gym 2-4pm

Dear Parents,

Our students learn more, do better, and have a greater interest in school when their parents are aware of and interested in what they are learning.

Please take a few minutes to read over this assignment with your child. For many students, this may be the first "term paper" they have ever written. Be supportive of him or her and discuss what he or she is learning about the topic of the research paper. Your interest will always be appreciated.

If you have any questions or comments on this or any of your child's assignments, please do not hesitate to call.

Thank you.

Mr. Jeff Moore
Mrs. Dorothy Zanetti

(tear off here)→

My child and I have reviewed the assignment as outlined in the previous pages and understand what is required.

_____ _____

SIGNATURE OF PARENT DATE

(COMMENTS? QUESTIONS?)